

Figure 1A

The diagram illustrates a Shared MicMac Tuple Space. It features three agents, each represented by an oval: "Agent @ Ottawa U." (top left), "Agent @ NRC" (bottom left), and "Agent @ Mitel Co." (top right). These agents are connected to a central cloud labeled "Shared MicMac Tuple Space". Arrows labeled "KQML-Tuple" indicate the flow of communication between the agents and the shared space.

Figure 1B

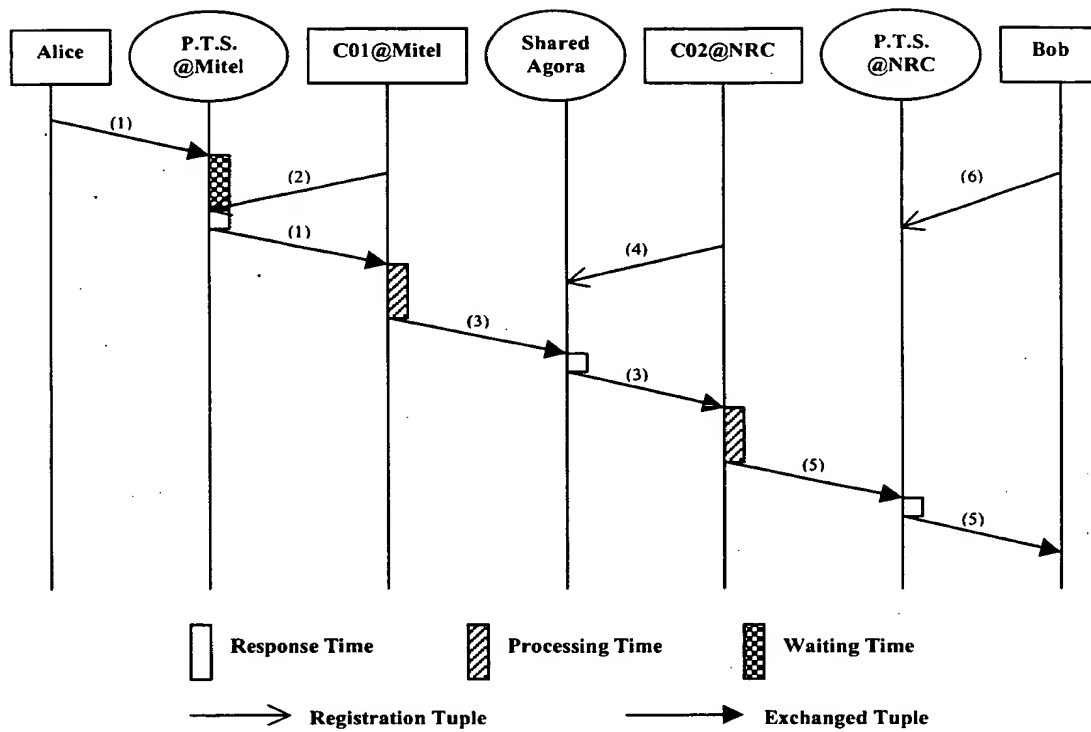


Figure 3

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$\{ \begin{smallmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 & 13 & 14 & 15 & 16 & 17 & 18 & 19 & 20 & 21 & 22 & 23 & 24 & 25 & 26 & 27 & 28 & 29 & 30 & 31 & 32 & 33 & 34 & 35 & 36 & 37 & 38 & 39 & 40 & 41 & 42 & 43 & 44 & 45 & 46 & 47 & 48 & 49 & 50 & 51 & 52 & 53 & 54 & 55 & 56 & 57 & 58 & 59 & 60 & 61 & 62 & 63 & 64 & 65 & 66 & 67 & 68 & 69 & 70 & 71 & 72 & 73 & 74 & 75 & 76 & 77 & 78 & 79 & 80 & 81 & 82 & 83 & 84 & 85 & 86 & 87 & 88 & 89 & 90 & 91 & 92 & 93 & 94 & 95 & 96 & 97 & 98 & 99 & 100 \end{smallmatrix} \}$

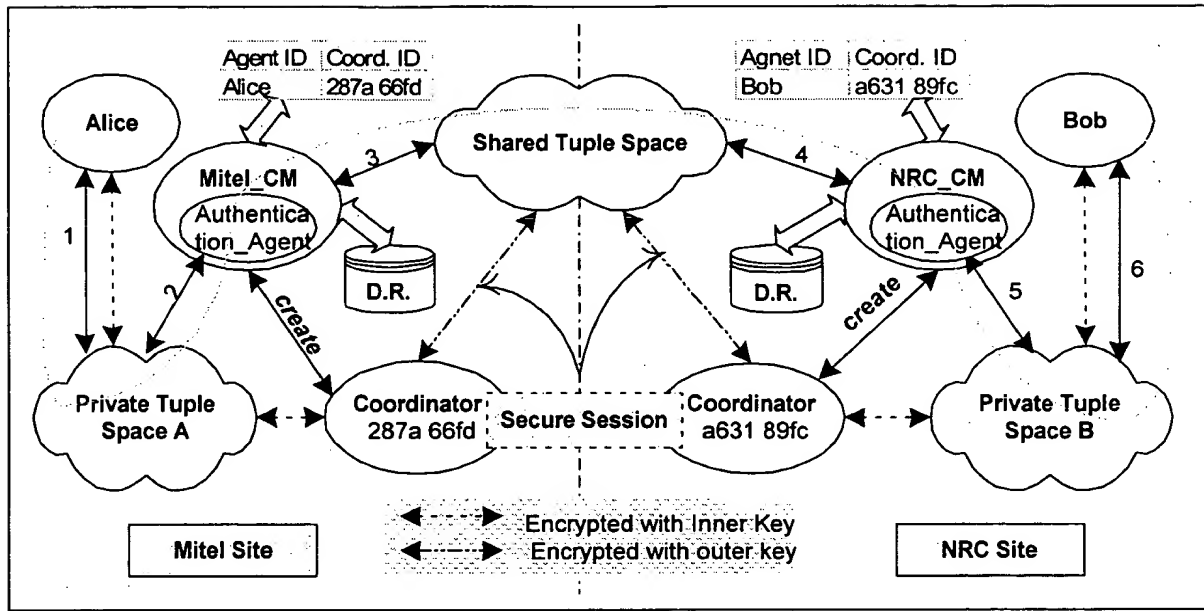


Figure 4

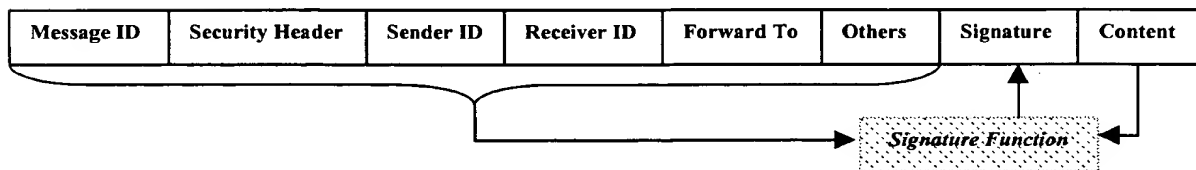


Figure 5

The diagram illustrates a sequence of interactions between several entities: Alice, P.T.S. @Mitel, CM@Mitel, Shared Agora, CM@NRC, P.T.S. @NRC, and Bob. The interactions are numbered 1 through 12. The diagram is divided into two main sections by a dashed line. The top section, labeled 'Authentication and Key Exchange', contains messages 1 through 6 and several processing time blocks (hatched boxes). The bottom section contains messages 7 through 12 and more processing time blocks. A legend indicates that hatched boxes represent 'Processing Time'. An assumption box at the bottom right states: 'Assumption: Response Time=0, Waiting Time=0'.

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sequenceDiagram
    participant Alice
    participant P_T_S_Mitel as P.T.S. @Mitel
    participant CM_Mitel as CM@Mitel
    participant Shared_Agora as Shared Agora
    participant CM_NRC as CM@NRC
    participant P_T_S_NRC as P.T.S. @NRC
    participant Bob

    Note over Alice, P_T_S_Mitel: 1 (1)
    Note over P_T_S_Mitel, CM_Mitel: 2
    Note over CM_Mitel, Shared_Agora: 3
    Note over Shared_Agora, CM_NRC: 4
    Note over CM_NRC, P_T_S_NRC: 5
    Note over P_T_S_NRC, Bob: 6

    Note over Bob: Processing Time
    Note over Bob, P_T_S_NRC: 11
    Note over P_T_S_NRC, CM_NRC: 10
    Note over CM_NRC, Shared_Agora: 9
    Note over Shared_Agora, P_T_S_Mitel: 8
    Note over P_T_S_Mitel, Alice: 7 (4)

    Note over Alice, P_T_S_Mitel: Processing Time
    Note over P_T_S_Mitel, CM_Mitel: (2)
    Note over CM_Mitel, Shared_Agora: Processing Time
    Note over Shared_Agora, CM_NRC: (3)
    Note over CM_NRC, P_T_S_NRC: Processing Time
    Note over P_T_S_NRC, Bob: Processing Time

    Note over Bob: Processing Time
    Note over Bob, P_T_S_NRC: (6)
    Note over P_T_S_NRC, CM_NRC: Processing Time
    Note over CM_NRC, Shared_Agora: Processing Time
    Note over Shared_Agora, P_T_S_Mitel: Processing Time
    Note over P_T_S_Mitel, Alice: Processing Time

    Note right of Bob: Authentication and Key Exchange
    Note right of Bob: Assumption: Response Time=0, Waiting Time=0
  
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Figure 6